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(54) **Process for the preparation of fluid bed vinyl acetate catalyst**

(57) A process for the preparation of a fluid bed vinyl acetate (VAM) catalyst comprising impregnating a support comprising a mixture of substantially inert microspheroidal particles with a solution comprising a halide-free metal salt of Pd and M, wherein M comprises Ba, Au, La, Nb, Ce, Zn, Pb, Ca, Sr, Sb or mixtures thereof, reducing the metal salts to form a deposit of Pd and M

on the support surface and impregnating the support with at least one halide-free alkali metal salt. At least 50% of the particles used for the microspheroidal support have a particle size below 100 microns, preferably below 60 microns. The pore volume of these particles is from 0.2 to 0.7cm³/g and the surface area is from 100 to 200 m²/g.



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EUROPEAN SEARCH REPORT

Application Number
EP 95 30 1022

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	EP-A-0 082 222 (STANDARD OIL CO OHIO) 29 June 1983 * page 3, line 1 - line 7 * * page 3, line 28 - page 4, line 7 * * page 5, line 24 - line 30; table I * ---	1-4	B01J32/00 B01J35/10 B01J37/00 C07C67/05 C07C69/15 B01J23/56
X	EP-A-0 283 649 (HUELS CHEMISCHE WERKE AG) 28 September 1988 * abstract *	1-4	
A	* column 3, line 53 - column 4, line 28 * * column 5; example 1 * * claims *	5-7	
A	US-A-4 631 264 (HAGEN GARY P) 23 December 1986 ---	1	
A	GB-A-2 003 878 (VULCAN MATERIALS CO) 21 March 1979 ---	1	
A	FR-A-2 276 285 (KURARAY CO) 23 January 1976 * claims *	1-4	
A	---	8-24	
X	EP-A-0 032 298 (MOBIL OIL CORP) 22 July 1981 * page 3 - page 5 * * page 10; examples 2-6 * * claims 1-5 *	5-7	B01J C07C
X	FR-A-2 010 775 (BAYER) 20 February 1970 * page 3 - page 5 * * page 7; example 1 * * claims *	5-7	
A	US-A-5 179 056 (BARTLEY WILLIAM J) 12 January 1993 ---	8-24	
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 21 November 1995	Examiner Lo Conte, C
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.92 (P04C01)



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid,
namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions,

namely:

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- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid,
namely claims:
- ☐ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims,
namely claims:



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EUROPEAN SEARCH REPORT

Application Number
EP 95 30 1022

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	US-A-3 822 308 (KRONIG W ET AL) 2 July 1974	8-24	
A	--- EP-A-0 431 478 (HOECHST AG) 12 June 1991 * column 4, line 17 - column 5, line 19 * * column 8; example 1 * * claims * -----	8-24	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 21 November 1995	Examiner Lo Conte, C
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EP 95 30 1022 -B-

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims 1-4: Catalyst carrier for vinyl acetate fluid bed production with certain specific product features
2. Claims 5-7: Process for the manufacture of a catalyst carrier
3. Claims 8-24: Pd-M-A catalyst and process for its preparation